Remarks

Support for the above-requested amendments to claim 1 is found at least in paragraphs [0038] and [0050] and Figure 6. Support for the amendments to claim 6 is found at least at paragraph [0036]. Claims 2, 4, 6, 7, 15, 20, and 21 were amended to change grammatical phraseology and/or inadvertent typographical errors and were not amended for any reason related to patentability. Support for the amendments to claims 16 and 17 is found at least in paragraph [0038]. Claims 10 – 14 and 22 – 31 have been canceled without prejudice. New claims 32 and 33 is supported at least by paragraphs [0037] and [0037] and originally filed claim 18. New claim 34 is a combination of original claims 1 and 16. New claims 36 – 38 correspond to original claims 3 – 4 respectively. New claims 39 – 41 correspond to original claims 18 – 20 respectively. New claim 42 is a combination of original claims 1 and 21. New claims 43 and 44 correspond to original claims 18 and 19. New claims 45 and 46 correspond to originally filed claims 15 and 16 respectively.

In the Replacement sheets of figures attached in Attachment A, the following amendments were made. Figure 4A was amended to add reference numeral 118 to depict the roller upon which the foam may be deposited. Figures 5B – D were amended to add reference numerals 123, 125, and 127 respectively to show the various polymeric foam layers described in the Detailed Description of the application. Reference numerals 101, 103, and 105 were also added to depict the fiber batts illustrated in Figures 5B – D respectively. Figure 6 was amended to include reference numeral 100 to depict the fiber batt prior to coating it with a polymeric foam. Figure 6 was also amended to add reference numeral 104 to depict the rollers and reference numeral 122 to depict the foam layer on the second major surface (*i.e.,* bottom) of the fiber batt. In Figure 8, fiber batt 100, foaming mixtures 112, and rollers 104 were labeled with lead lines and reference numerals. Reference numeral 134 and

the corresponding lead lines for the conveying apparatus were removed in Figures 8, 9, and 12 because it was not identified in the Detailed Description. Figure 9 was amended to depict the fiber batt 100 and the rollers 104. In Figure 11A, reference numerals 112 (foaming mixture), 104 (rollers), 114c (side foam applicator), and 124c (curing oven) and corresponding lead lines were added. Figure 11C was amended to depict the top foam layer 122a, the bottom foam layer 122b, and the fiber batt 100. Figure 11E was amended to depict the top foam layer 122a, the bottom foam layer 122b, the side foam layers 122c and 122d, and the fiber batt 100. In Figure 12A, the fiber batt 100, foaming mixture 112, and foam layer 122a were identified with lead lines and reference numerals. Figure 12C was amended to depict the top foam layer 122a and fiber batt 100. Figure 12D was amended to depict sheet material 128 on the bottom of the fiber batt. Figure 12E was amended to depict the top foam layer 122a, the side foam layers 122c and 122d, and sheet material 128. Figure 13D was amended to depict side foam layer 122c. Figure 13E was amended to depict side foam layers 122c and 122d, the top foam layer 122a, the bottom foam layer 122b, and the fiber batt 100. In Figure 14A, reference numeral 114 and the corresponding lead line for the foam applicator was removed and the two foam applicators 114a and 114b were separately identified. Figure 14E was amended to depict the top foam layer 122a, the side foam layers 122c and 122d, the bottom foam layer 122b, and the fiber batt 100. In Figure 15A, rollers 104 and the foaming mixture 112 were identified with lead lines and corresponding reference numerals. Figure 15E was amended to depict the top foam layer 122a, the side foam layers 122c and 122d, the bottom foam layer 122b, and the fiber batt 100.

No question of new matter arises and entry of the above-requested amendments to the claims and the Figures and entry of the new claims is respectfully requested.

Claims 1 – 9, 15 – 21, and 32 - 46 are before the Examiner for consideration.

Formal Matter

As shown above, Applicants have added new claims 32 - 46 by amendment. Because claims 10 – 14 and 22 – 31 have been canceled (15 claims in total) and claims 32 - 46 have been added (15 claims in total), the total number of claims Applicants are submitting for examination is not greater than the total number of claims previously presented and paid for. Applicants, therefore, respectfully submit that no additional filing fees are required for newly added claims 32 - 46. In addition, Applicants respectfully submit that there are no fees required for new independent claims 34 and 42 because the total number of independent claims present in the application does not exceed three. Furthermore, because support for newly added claims 32 - 46 is found throughout the specification, as identified in the opening paragraph of the Remarks, Applicants respectfully submit that these newly added claims do not contain any new matter.

Election/Restriction Requirement

The Office has required an election in the above-identified application as follows:

Species A, where all the surfaces of a fibrous batt are coated with a foamable material (Figures 6 – 7); and

Species B, where at least one of the surfaces of a fibrous batt is attached with a "premanufactured sheet material" (Figure 8).

The Office indicates that during a telephone conversation with Maria Gasaway on September 21, 2005, a provisional election was made with traverse to prosecute the invention of Species A, claims 1 - 22. Additionally, the Office notes that claims 23 -31 were withdrawn from further consideration as being drawn to a non-elected invention.

In the outstanding Office Action (dated October 6, 2005), the Office indicates that upon further consideration, claims 10 – 14 and 22 are readable upon Species B, and not Species A. For this reason, the Office has also withdrawn claims 10 – 14 and 22.

In response to this election/restriction requirement, Applicants hereby affirm the election of Species A, now claims 1 – 9 and 15 – 21 and cancels claims 10 – 14 and 22 – 31 without prejudice.

Rejection under 35 U.S.C. §112, second paragraph

Claims 6 and 7 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite. In particular, the Office asserts that it is unclear what is intended by the phrase "one polymer selected from a group consisting of *water soluble, water emulsifiable and water dispersable polymers and prepolymers*" (emphasis added).

In response to this rejection, Applicants have amended claim 6 to further clarify that the polymeric foam includes at least one water soluble polymer, water soluble prepolymer, water emulsifiable polymer, water emulsifiable prepolymer, water dispersible polymer, and/or water dispersible prepolymer. Applicants note that claim 7 was included in this rejection because of its dependency on claim 6, and as such, does not need to be separately amended to overcome this rejection. Applicants submit that claim 6 as amended is sufficiently definite and therefore respectfully request reconsideration and withdrawal of this rejection.

Rejection under 35 U.S.C. §102(e)[1]

Claims 1, 6, and 8 - 9 have been rejected under 35 U.S.C. §102(e) as being clearly anticipated by U.S. Patent No. 5,549,753 to Matthews, *et al.* ("Matthews").

In response to this rejection, Applicants respectfully direct the Examiner's attention to the amendments made to independent claim 1 and submit that claim 1, as amended, defines a method of forming an encapsulated fiber batt that is not taught (or suggested) by Matthews. As amended, claim 1 claims a method of forming an encapsulated fibrous batt that includes conveying a fiber batt that has first and second major surfaces and two minor surfaces in a substantially horizontal direction, passing the fiber batt past two or more foam application assemblies that deposit a polymeric foam on separate surfaces of the fiber batt, and curing the polymeric foams to form a foam layer on each of the surfaces that contain the polymeric foam. Claim 1 further recites that the polymeric foam deposited on the separate surfaces of the fiber batt may be the same as or different from each other.

Matthews, on the other hand, teaches applying a foam coating to a molded fibrous workpiece by passing the molded workpiece through a coating chamber filled with a single polymeric foam such that the workpiece is totally immersed in the foam as the workpiece passes through the chamber. (*See, e.g.*, Abstract, column 4, lines 4 – 11, and column 8, lines 6 - 14). The foam coating is produced by mixing a liquid polymeric latex with pressurized air. (*See, e.g.*, column 3, lines 24 – 33). The foam coating is introduced into the coating chamber both above and below the path of the workpiece by a pair of foam supply lines. (*See, e.g.*, Abstract, column 3, lines 33 – 36, and column 4, lines 14 – 18). Brushes or wiper

[1] Applicants note that this rejection has been labeled as a rejection under 35 U.S.C. §102(e), but based on the date of issuance of the patent, Applicants submit that it is more properly considered a rejection under 35 U.S.C. §102(b).

blades may be used to spread the foam coating over the exterior surfaces of the molded workpiece. (*See, e.g.*, Abstract and column 4, lines 28 – 49).

Applicants respectfully submit that there is no teaching (or suggestion) within Matthews of passing a fiber batt past two or more application assemblies that deposit a polymeric foam on separate surfaces of the fiber batt or of having polymeric foams on separate surfaces of the workpiece that are different from each other. In Matthews, the workpiece is encapsulated by a single foam that coats the workpiece within a coating chamber filled with the foam. To be an anticipatory reference, each and every element of the claimed invention must be found within the four corners of the cited reference. Because Matthews does not teach or suggest passing a fiber batt past two or more application assemblies that deposit a polymeric foam that may be the same as or different from each other as required by amended claim 1, Matthews cannot be an anticipatory reference.

In view of the above, Applicants submit that claim 1, and all claims dependent therefrom, are not anticipated by Matthews and respectfully request that the Examiner reconsider and withdraw this rejection.

Rejection under 35 U.S.C. §102(e)[2]

Claims 1 and 6 have been rejected under 35 U.S.C. §102(e) as being clearly anticipated by U.S. Patent Application No. 2001/0033926 A1 to Matthews, *et al.* ("Matthews").

In response to this rejection, Applicants respectfully direct the Examiner's attention to the amendments made to independent claim 1 and submit that claim 1, as amended, defines a

[2] Applicants note that this rejection has been labeled as a rejection under 35 U.S.C. §102(e), but based on the publication date, Applicants submit that it is more properly considered a rejection under 35 U.S.C. §102(b).

method of forming an encapsulated fiber batt that is not taught (or suggested) by Matthews. As discussed above, amended claim 1 defines method of forming an encapsulated fibrous batt that includes conveying a fiber batt past two or more foam application assemblies that deposit a polymeric foam on separate surfaces of the fiber batt and then curing the polymeric foams to form a foam layer on each of the foamed surfaces. Claim 1 also recites that the polymeric foam deposited on the surfaces of the fiber batt may be the same as or different from each other.

Matthews, on the other hand, teaches an in-line method of forming a multilayered coating on a sheet of fibrous foam insulation. (*See, e.g.*, Abstract and paragraph [0007]). Each of the layers of the multilayered coating are discrete and separate from each other and can be formulated to perform a specific function. (*See, e.g.*, paragraphs [0007] and [0022]). In addition, the layers forming the multilayered coating may be made of different weights and thicknesses. (*See, e.g.*, paragraph [0024]). In the process of Matthews, a first coating layer is applied to an insulation sheet and partially cured by a heater. (*See, e.g.*, paragraphs [0007] and [0026]). A second coating layer is then applied to the first coating layer. (*See, e.g.*, paragraphs [0007] and [0027]). The multilayered insulation sheet is then heated to cure the first and second coating layers. (*See, e.g.*, Abstract and paragraph [0027]).

Matthews, however, does not teach or suggest passing a fiber batt past two or more application assemblies to deposit a polymeric foam on separate surfaces of the fiber batt. In order for a reference to be anticipatory, each and every element of the claimed invention must be found within the four corners of the cited reference. Because Matthews does not teach passing a fiber batt past two or more application assemblies that deposit a polymeric foam that may be the same as or different from each other on the surfaces of the fiber batt as required by amended claim 1, Matthews is not an anticipatory reference.

In light of the above, Applicants submit that claim 1, and all claims dependent therefrom, are not anticipated by Matthews and respectfully request that this rejection be reconsidered and withdrawn.

Rejection under 35 U.S.C. §103(a)

Claims 2 – 5, 7, 15, 17, and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,549,735 to Matthews, *et al.* ("Matthews '753") or U.S. Patent Application No. 2001/0033926 to Matthews, *et al.* ("Matthews '926"). The Office asserts that with respect to claim 2, it is old in the art to apply an expandable foamable material onto a fibrous web. In addition, it is asserted that a preference on whether to apply a preformed foamed or a foamable material onto a fibrous material is a choice that is well within the purview of one of skill in the art and that no matter which is chosen, the same desired result would be achieved. Thus, the Office asserts that claim 2 would have been obvious in the art. With respect to claims 3 – 7, 15, and 17, the Office asserts that the features of the claims would have been obvious absent a showing of unexpected results. In addition, it is asserted that the features set forth in claims 3 – 7, 15, and 17 are old in the art, and for this additional reason, these claims would have been obvious.

In response to this rejection, Applicants respectfully submit that claims 2 – 5, 7, 15, 17, and 20 are all dependent upon independent claim 1, and that claim 1 is not obvious over either Matthews '753 or Matthews '926. With respect to Matthews '753, Matthews '753 teaches encapsulating a fibrous workpiece with a single latex foam. (*See, e.g.*, column 3, lines 26 – 36). The encapsulation of the workpiece occurs by passing the workpiece through a coating chamber that is completely filled with a latex foam by a set of foam supply nozzles. (*See, e.g.*, column 3, line 66 – column 4, line 7). The foam supply nozzles of Matthews '753

act to fill the chamber with the latex foam and do not deposit the foam on the surface of the workpiece. As the workpiece passes through the coating chamber, the upper and lower surfaces of the workpiece are coated with a layer of the latex foam. (*See, e.g.*, column 4, lines 7 – 11). It is the presence of the latex foam throughout the coating chamber and the immersion of the workpiece in the foam in the foam-filled chamber that causes the workpiece to be coated with a foam layer. In Matthews '753, there are no separate foam application assemblies which deposit a layer of a polymeric foam onto separate surfaces of the workpiece. In addition, Matthews '753 is silent as to the application of a second or additional foam material to any side of the workpiece. Thus, Applicants respectfully submit that Matthews '753 fails to teach or even suggest a method of forming an encapsulated fiber batt in which the fiber batt is passed by two or more foam application assemblies that deposit a foam on separate surfaces of the fiber batt and where the polymeric foam may be the same as or different from each other as required by claim 1.

In addition, Applicants submit that there is no motivation for one of skill in the art to arrive at the presently claimed invention based on the disclosure of Matthews '753. To establish a *prima facie* case of obviousness, there must be some motivation, either within the reference or in the knowledge of those of skill in the art, to modify the reference or combine the references' teachings, there must be a reasonable expectation of success, and the prior art references must meet all of the claim limitations. (*See, e.g., Manual of Patent Examining Procedure*, Patent Publishing, LLC, Eighth Ed., Rev. 3, August 2005, §2142). One of ordinary skill in the art simply would not be motivated to arrive at the presently claimed method of passing a fiber batt past two or more application assemblies that deposit a polymeric foam (which may be the same as or different from each other) on separate surfaces of the fiber batt and curing the polymeric foam to form a foam layer on each of the surfaces

that have a foam layer thereon because Matthews '753 teaches immersing a fibrous workpiece in a single latex foam filled into a coating chamber to encapsulate and coat the workpiece with the foam.

With respect to Matthews '926, Applicants submit that there is no teaching or suggestion within Matthews '926 of a method of forming an encapsulated batt in which the fiber batt is passed by two or more foam application assemblies to deposit a foam on separate surfaces of the batt as required by claim 1. Matthews '926 clearly teaches the application of multiple layers of foam on a single side of a sheet of fibrous insulation. (*See, e.g.,* paragraphs [0006], [0007], [0026], [0027], and Figures 1 - 4). Although the discrete foamed layers may be formed of different materials or have different thicknesses, they are positioned on a single side (*e.g.,* top surface) of the sheet of fibrous insulation. (*See, e.g.*, paragraphs [0006], [0007], [0022], [0024] and Figures 1 - 4). This is clearly different from the presently claimed invention.

In addition, Applicants submit that one of skill in the art would not arrive at the presently claimed invention based on the disclosure of Matthews '926. In particular, Matthews '926 is silent as to the teaching of placing a foamed layer on more than one side of fibrous insulation. As discussed above, to have a *prima facie* case of obviousness, there must be some motivation, either within the reference or in the knowledge of those of skill in the art, to modify the reference. One of ordinary skill in the art simply would not be motivated to pass the fiber insulation of Matthews '926 past multiple foam application assemblies to deposit a polymeric foam on separate surfaces of the fiber insulation as required in claim 1 based on the disclosure of Matthews '926. Without some teaching or suggestion, there can be no motivation, and without motivation, there can be no prima facie case of obviousness.

In view of the above, Applicants submit that claim 1 is non-obvious and patentable over both Matthews '753 and '926. With respect to claims 2 – 5, 7, 15, 17, and 20, Applicants submit that because independent claim 1 is not taught or suggested within either Matthews '753 or Matthews '926 and claims 2 – 5, 7, 15, 17, and 20 are dependent upon independent claim 1 and contain the same elements as claim 1, dependent claims 2 – 5, 7, 15, 17, and 20 are also not taught or suggested within Matthews '753 or '926. Therefore, Applicants respectfully request that this rejection be reconsidered and withdrawn.

Rejection under 35 U.S.C. §103(a)

Claims 8 and 9 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2001/0033926 to Matthews, *et al.* ("Matthews '926") in view of U.S. Patent No. 4,990,370 to Terry *et al.* ("Terry") and U.S. Patent No. 5,549,753 to Matthews, *et al.* ("Matthews '753"). The Office asserts that it would have been obvious in the art to coat all of the exposed surfaces of a fiber batt in the process of Matthews '926 because Terry is drawn to a method of making a similar fibrous article and teaches the desirability of coating the major and minor surfaces of a batt. In addition, it is asserted that it is old in the art to fully coat a fibrous material with a foamable material as exemplified in the teachings of Matthews '753.

In response to this rejection, Applicants respectfully direct the Examiner's attention to claim 1 and submit that claim 1, as amended, defines a method of encapsulating a fibrous batt that is not taught or suggested by the combination of cited references. Terry teaches applying a layer of a coating material to the horizontal upper and vertical surfaces of a glass blanket. (*See, e.g.*, Abstract, column 2, lines 26 – 37, and column 4, lines 25 – 36). In particular, a coating material is supplied to the top surface of the glass blanket in a quantity sufficient to

form a puddle of excess material that flows over the sides of the glass blanket. (*See, e.g.*, column 4, lines 26 – 37). Rollers are disposed downstream to evenly distribute the coating material on the edge surfaces. (*See, e.g.*, column 4, lines 64 – 68). As discussed above, Matthews '753 teaches a product that is coated with a latex foam. However, Applicants submit that even if the teachings of Terry or Matthews '753, *e.g.*, coating more than one side of a fibrous material, were combined with the teachings of Matthews '926 as suggested by the Office, the combination would not result in the method of the present invention.

For example, as discussed above, Matthews '926 clearly teaches the application of discrete, multiple layers of a first and second coating composition on a single side of the insulation sheet. Therefore, assuming that the teachings of Terry and Matthews '753 were combined with the teachings of Matthews '926, the result would be a method in which multiple layers of coating compositions are applied to more than one surface of an insulation sheet. In other words, each coated side would contain a multilayer structure of discrete layers of a first and second coating composition. This method of forming a multilayer structure on more than one side of an insulation sheet is clearly not the same as the method presently claimed in claim 1, namely, passing a fiber batt past two or more foam application assemblies to deposit a polymeric foam on a separate surface of the fiber batt and curing the polymeric foams to form a foam layer on each of the surfaces containing the foam. Thus, it is respectfully submitted that the combination of the teachings of Matthews '926 and Terry or Matthews '753 would not result in the presently claimed invention.

In view of the above, Applicants submit that the present invention is not obvious over Matthews '926, either alone or in combination with Terry and/or Matthews '753 and respectfully request that this rejection be reconsidered and withdrawn.

Indication of Allowable Subject Matter

As discussed above, Applicants have added new independent claims 34 and 42 by amendment. New claim 34 is a combination of original claims 1 and 16 and new claim 42 is a combination of claims 1 and 21. In the outstanding Office Action, it is asserted that dependent claims 16 and 21 contain allowable subject matter. Thus, Applicants submit that these new independent claim 34 contains the allowable subject matter of claim 16 that new independent claim 42 contains the allowable subject matter of claim 21. Therefore, Applicants respectfully request that newly added independent claims 34 and 42, and all claims dependent therefrom, be passed to allowance and a Notice of Allowabilty be issued on these claims.

Conclusion

In light of the above, Applicants believe that this application is now in condition for allowance and, therefore, request favorable consideration. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 50-0568 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

Date: 1-6-06

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